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INSTRUCTIONAL TECHNOLOGY AND THE PRESS--A CASE STUDY.

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PRESS TREATMENTS OF CERTAIN EVENTS INVOLVING COMMUNICATION TECHNOLOGIES IN EDUCATION WERE EXAMINED. STUDY EFFORT CENTERED ON THE U.S. DAILY PRESS COVERAGE OF THE 1961 NATIONAL EDUCATION ASSOCIATION CONVENTION, A TOTAL OF 193 NEWSPAPER STORIES. FROM THE STANDPOINT OF "TECHNOLOGICAL" PRESS COVERAGE, THE DOMINATING ISSUE (OR THEME) WAS THE MAN-MACHINE CONFLICT, TAKING THE FORM OF "TEACHERS VERSUS THE TEACHING MACHINES." THIS ISSUE MONOPOLIZED ALL FRONT-PAGE SPACE DEVOTED TO THE SUBJECT OF COMMUNICATION TECHNOLOGIES, AND COLORED ALL RELEVANT HEADLINES. CONVENTION ANNOUNCEMENTS AND DISCUSSIONS OF NEW ELECTRONIC INNOVATIONS AND TECHNIQUES COMPOSED A MINOR BUT SIGNIFICANT THEME OF THE PRESS COVERAGE. THE SIGNIFICANCE OF THE STUDY RESTED UPON AN INQUIRY INTO THE OPERATION OF GENERAL PROCESSES UNDER CERTAIN SPECIFIC CONDITIONS. LITTLE GENERALIZATION OF THE RESULTS WAS ATTEMPTED. (JH)

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Occasional Paper No. 4

INSTRUCTIONAL TECHNOLOGY AND THE PRESS: A CASE STUDY

Daily newspaper treatment of communication technology topics discussed at the 1961 NEA convention

by

George Gerbner
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U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
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A Report Prepared for the

TECHNOLOGICAL DEVELOPMENT PROJECT

of the

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National Education Association

Technological Development Project

PUBLICATION NOTE

The series of Occasional Papers of the TDP is drawn from the vast amount of background material collected and developed by the Project. Each paper reproduced will contain material of importance to the final report of the Project, but with more detail than can be carried in any final report.

Recently, a degree of interest has been shown in the Occasional Papers which was not anticipated at the beginning of the Project. Responding to the interest, the U.S. Office of Education has made possible a limited general distribution. Copies of the Occasional Papers may now be obtained from the National Education Association for a handling charge of $1.50. Address all requests, with money enclosed, to:

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1201 Sixteenth Street, N. W.
Washington 6, D. C.

Papers available so far include:

1. Occasional Paper No. 1, Charnel Anderson, History of Instructional Technology, I: Technology in American Education, 1650-1900.

2. Occasional Paper No. 2, L. Paul Saettler, History of Instructional Technology, II: The Technical Development of the New Media.

3. Occasional Paper No. 3, James D. Finn and Donald G. Perrin, Teaching Machines and Programed Learning, 1962: A Survey of the Industry.

4. Occasional Paper No. 4, George Gerbner, Instructional Technology and the Press: A Case Study.

5. Occasional Paper No. 5, Forrest M. Townsend, Automation In Educational Administration, I: Vending Machines in Education.

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FOREWORD

The problem of the Technological Development Project is to assess the impact of the potential technological revolution in instruction upon education and the educational profession. The studies of the Project have ranged, insofar as it has been possible, over a wide and conglomerate area which includes industrial developments, educational theory and experiment, economics and organization. Soundings have been taken at a number of points - points which, we have thought, would help us describe the nature of this revolution and its effects.

However, the so-called "high" technology cannot exist but in an equally highly organized society. This organization patterns and influences the technology and, in the same transaction, the technology patterns and influences the society. There have been, in the history of technology, many technological revolutions that did not take place, or which were delayed long after their time, or which had to wait for a new culture in which to grow. In these cases, for the most part, the organization of the society prevented or blunted the revolution.

In American society, as Dr. Gerbner points out in his introductory material, the climate of the community - local, state and national - is the controlling factor in the growth or withering of educational innovation. Part of that climate is determined by that essence of the modern community - communication. And while communication in our society is a complex of instruments and events, the press remains, not only powerful in its own right, but an indicator of the nature of other communication events.

It was for this reason that we urged Dr. Gerbner to separate out from a larger study of the treatment of education in the press, an analysis of the treatment accorded some of the ideas and developments relating to the new instructional technology - television, teaching machines, etc. Questions continue to arise as to whether or not the technological capability of American society will, in fact, ever be transferred on any sort of revolutionary scale to the educational enterprise. If the press conditions the climate of the community, and the climate of the community in turn conditions the acceptance or rejection of educational innovation, then the study presented here by Dr. Gerbner has a great deal of significance for all those dealing with problems of instructional technology.

I would like to add a personal note of appreciation to Dr. Gerbner for the effort he has made in carrying out this study at a time when he has been committed to several larger projects. Dr. Gerbner is, without doubt, one of the world's foremost scholars in the field of the mass media of communication. The Technological Development Project is not only fortunate to have this study, but also to have George Gerbner as a member of the Project Advisory Committee.

James D. Finn
Los Angeles, March, 1962

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INSTRUCTIONAL TECHNOLOGY AND THE PRESS:

A CASE STUDY

SECTION I

BACKGROUND AND SETTING OF THE STUDY

As far as we know, no one had thought of studying the treatment of instructional technology in the American press until a summer day in 1961. The author was visiting the University of Southern California and had lunch with a good friend and colleague, Dr. James D. Finn. The discussion drifted to research activities of mutual interest. It developed that the lines of investigation separately pursued by the two of us for the past year intersected at one point. The idea of this paper was born then and there.

Upon reflection, the idea seemed extremely feasible and desirable. The author had been engaged in a broad study of the presentation of teaching, teachers, and educational subjects in the press and other mass media.[1] The materials collected in the course of this study included evidence pertaining to press coverage of educational subjects and activities in several different connections. One striking aspect of this coverage appeared to be the variable extent and nature of newspaper attention given to the new communication technologies in education.

The Technological Development Project of the National Education Association, directed by Dr. Finn, had been designed "to assess the impact of the potential revolution in the technology of instruction upon American education as a whole and the educational profession in particular."[2] In Occasional Paper No. 3, Finn and Perrin suggested that "The ultimate questions" about this potential revolution "can be answered only in the classrooms of the nation." But there was no disagreement with the author's contention that questions -- even "ultimate questions" -- about educational method are never answered on the basis of classroom experience alone. In a society which delegates major responsibility for schools to state and local communities, these questions are debated and answered in terms of issues structured by the most pervasive influences affecting the common culture. One of these influences is the press. The press plays a major role in structuring the issues, setting the agenda, determining the priorities, and shaping the perspectives from which educational and other problems and developments are seen.

It was at this point that the lines of research of the Technological Development Project and those of the author's broader study intersected. This paper, then, is the result and further development of a combination of concerns converging on the subject of the press treatment of certain events involving communication technologies in education. It may be of interest to those concerned with understanding, influencing or formulating educational policy, press policy, or both. It also may be of interest to students of the mass media who look upon it as a case study in the dynamics of press attention, emphases, and perspectives.

Pilot Studies and Observations

The background to the major study reported in this paper consists of two related investigations and some preliminary observations leading up to the decision to focus on the press coverage of the 1961 convention of the National Education Association.

The pilot investigations turned up little evidence relevant to our present subject, and even less than might be considered sound basis for generalization. But they provided some grounds for speculation about the nature of the problem, and possible clues to its understanding.

Study of Two Weeks' Newspaper Content:

As part of the broader press study, two weeks' issues of 25 selected daily newspapers[3] were screened to determine the extent and nature of their coverage of events involving education, schools, and teachers. Certain topics, including communication technology, were followed throughout the study period from April 21 through May 4, 1961.

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[1]Supported by a Cooperative Research grant from the U.S. Office of Education and the University of Illinois, this cross-cultural study is scheduled for publication in 1963.

[2]Finn, James D., and Donald G. Perrin, Teaching Machines and Programed Learning, 1962: A Survey of the Industry. Occasional Paper No. 3, Technological Development Project, National Educational Association.

[3]A list of these newspapers appears in the Appendix, Table 10.

An estimate of the distribution of the complete range of topics was derived from a classification of relevant content for two days, April 21--22. The 25 papers printed a total of 222 relevant items on those two days. Over half (52 percent) of these items were in the form of general news and features; 35 percent were in sports; 7 percent were comic strips; 5 percent were editorials and letters to the editor; and 1 percent were advertisements.

During the two-week period, only three of the estimated 1,500 relevant stories dealt with communication technologies.

On April 21, The Kansas City Star (circulation 332,000) carried a long story on page 20, headlined "MACHINES SEEN AS VALUABLE IN TEACHING FAMILY LIVING." The story began:

> Turning a knob may lead to happier marriages some day. At least that's the theory of Oscar Eggers, assistant professor of sociology at the University of Kansas City and a member of the staff at Community Studies.
>
> A booster of teaching machines, Eggers has set out to instruct students in one of the most personal subjects, family living, by way of the most impersonal and newest of educational mediums.
>
> Can machines tell how to discipline children, plan a budget, or face the facts of life? Well, they can provide as much information as a textbook, Eggers answers.
>
> In fact, in at least one way, they will serve better than human teachers, he believes.
>
> "Machines will remove all worries about sex education in the schools," Eggers said. "Students will just go to a machine and find out what they need to know."

This happy combination of sex and teaching machines[4] furnished the lead and bulk of what was also an advance publicity story about a then-forthcoming University of Kansas symposium on the subject of teaching machines. In the course of the story it was stated that "Eggers does not foresee teaching machines replacing teachers."

* * * *

The second technological story to emerge from the two-week scrutiny of 25 newspapers was an education feature in The New York Herald Tribune (circulation 337,000) on Sunday, April 23, written by Education Editor Terry Ferrer. The story was headlined "A CLASS HELPED BY CAP PISTOL." The deck under the headline explained "Professor Punctuates with Gun When Sentences Run Too Long." Aside from giving an account of the English professor's novel way of "punctuating" non-stop sentences read aloud in class, the story depicted him using an overhead projector and colored overlays to correct themes and to demonstrate grammatical structure.

Prof. Edwin L. Peterson of the University of Pittsburgh was also quoted as saying "naturally, no machine can replace a good teacher; but this projection method 'works like a charm'. . . . In five years," he predicted, "it will be used everywhere."

* * * *

The third story appeared in The Louisville Courier-Journal (circulation 217,000) of April 29. Sandwiched between the TV log and appliance ads, the story reported a "challenge" from the president of RCA to educational leaders to "dig up" $2-1/2 billion dollars to expand educational television and "provide television receivers for every classroom."

The long story occupied all of "Bill Ladd's TV Almanac," a regular feature. It was headlined "24TH CENTURY EDUCATION URGED." The deck read "RCA Chief Says $2-1/2 Billion Would Bring Benefits by 1971." The news came from a converence of educational broadcasters:

> Columbus, Ohio, April 28. --Educational leaders were told Friday that if they could dig up $2,500,000,000 they could bring the educational standards of the 24th Century into existence within the next 10 years through educational television.
>
> John L. Burns, president of Radio Corporation of America, challenged the National Association of Educational Broadcasters to do just that . . . Burns was here to attend the Institute for Education by Radio and Television held by Ohio State University.
>
> This committee, Burns said, should then . . . mount a massive informational program to persuade Americans that failure to support this measure would forfeit the nation's educational heritage.

---

[4]Calling to mind the limerick reportedly overheard in the cafeteria of Teachers College, Columbia University:

> The latest report from the Dean
> In praise of the teaching machine
> Is that Oedipus Rex
> Could have learned about sex
> By himself, and not bothered the Queen.

The story paraphrased Burns as explaining that $2-1/2 billion dollars would:

> Provide another 150 educational-television stations, giving nationwide educational coverage equal to that of the present commercial networks.
>
> Provide branching closed-circuit television systems for every school in the United States.
>
> Provide studios and television-tape libraries for the closed-circuit systems.
>
> Provide television receivers for every classroom.

In two direct quotes, the story quoted Burns as characterizing the $2-1/2 billion dollars as a "realistic and prudent investment which we can afford," and as expressing the feelings of a large defense contractor about raising the money:

> "This is the most prudent investment we can make as a nation," Burns told the educators, "and provide our best and most realistic hope for achieving a substantial upgrading of educational quality on a short-term basis at a cost which we can afford.
>
> "Raising this money and getting such a program started," Burns said, "will not be easy, as it was not easy to change from planes to missiles. But it will be just as significant to education as missilery is to defense."

* * * *

The fact that there were only three stories suggests that, during what might be considered a routine week in newsworthy educational affairs,[5] communication technology subjects make good copy under certain special circumstances. These circumstances include locally inspired news with a provocative angle, unusual novelty appeal, and impressive industrial source.

The nature of the coverage suggests that when technological news copy originates in a primarily educational context, the issue of machines replacing teachers is likely to be mentioned. This note of ambivalence between the "technological" and the "human" appeared to be missing in the story from an industrial and business source. The Utopian vision and extravagant demands of the RCA president, asking schoolmen to "dig up" for electronic hardware about one-sixth of total current public school costs, or over half of the total cost of higher education, in a year which saw defeat of a federal aid to education bill for the same amount, was reported as realistic and prudent.

Coverage of the DAVI Convention

A representative gathering of educators and others specifically concerned with communication technologies in the classrooms of America met April 24--28, 1961, during the two-week press study period. The occasion was the Miami Beach convention of the Department of Audio-Visual Instruction of the National Education Association, a professional organization of about 5,000 members.

The convention had an active press office. Its staff estimated that about 500 advance news releases had been sent to daily newspapers concerning the forthcoming event and names of local delegates for hometown tie-in had been supplied. During the convention, the press office functioned continuously. It registered reporters, supplied them with identification and information, arranged interviews, and released copies or extracts of major speeches.

The fact that none of the 25 newspapers screened carried news of the convention suggests that the event received little or no national press coverage. A special search of the local press revealed seven stories printed by three Miami newspapers. Two of the stories noted highlights of the convention program on opening day, made reference to "3,000 specialists from over the nation . . . in attendance," and called attention to the keynote address to be given by DAVI President James D. Finn. Another story gave news of President Kennedy's wire to the convention "praising its leadership and predicting 'greater educational strides' for American education." The fourth of the seven items about the convention announced that:

> Three thousand favors have been made by two local members of National Education Association for its Audio-Visual convention's Beachcomber Ball. Mrs. Mildred Perry, Cutler Ridge Elementary School, and Elsie Jenkins, Miami Springs Elementary School, produced "birds" from pandamus, shoes from melaleuca, and corsages from "wooden roses."

This left three local press items to deal with the substance of educational issues presented at the convention. Before we glance at these stories, let us take a look at what reporters might have had to choose from, and on what bases.

* * * *

Most newspapers do not have staffs large enough to cover more than a fraction of the potentially significant events going on in their circulation areas. The bulk of non-spot news coverage comes from releases and copies of speeches prepared and circulated in advance. But most newspapers do not even have staffs large enough to read, let alone write about, the avalanche of specialized reports, texts, and publicity materials descending upon them every day.

Newspapers which do not have education writers with a regular allotment of space -- and even some which do -- naturally treat education news by the same standards as other news. Timely events of local significance

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[5]Perhaps the only unusual aspect of the "educational" news was the murder of a Chicago school teacher by a fifth grade pupil. Much of the news coverage was devoted to this crime story.

involving names known to readers, and organizations active in the community are most likely to be selected for attention by the local staff. Other news may receive consideration if it can be angled in a provocative way, if it can fit in the context of issues and conflicts familiar to the reader, if it comes from an impressive source, or if it comes in on the news wires ready to be set in type and possessing some or all of the above characteristics.

Of the nearly 100 separate meetings scheduled during the convention, there were probably nine or ten that could be considered of general interest. These meetings ranged over all major problems and issues presented by new communication media in education.

The heralded keynote speech of James D. Finn failed the test of newsworthiness on several counts. Perhaps most serious was the fact that it challenged the popular dichotomy of Western literary tradition between "human" ends and "technological" means. Of nine other speeches circulated in advance, only two met the test of newsworthiness.

One was a talk on teacher training in specialized techniques -- one of several at the convention -- by Florida State School Supt. Thomas D. Bailey. The story of the speech in The Miami Herald (circulation 321,400) only reported Bailey's remarks on educational television. Under a headline "TIME NOW WASTED; SCHOOL TV REQUIRES NEW PLANNING," the story cited Bailey as saying that ETV "was forcing school officials to re-examine school schedules, school plants, and the role of the teacher." According to the story, Bailey explained that 25-minute television programs presented in assembly posed the problem of breaking "away from the lockstep of a 55 or 60-minute period."

An editorial in The Miami News (circulation 147,000) gave its own favorable account of the speech, asserting that "Television is bringing flexibility to schedule and classroom planning," and is "enabling the educator to break away from some of the locksteps of pedagogy."

The other speech, which received advance circulation and led to the third and last substantive item, had to do with teaching machines. In the first part of that speech, P. Kenneth Komoski, an expert on programed learning, attempted to explain why such words as "machines," and "automation" are "apt to cause only confusion when taken out of their industrial environment." In a valiant attempt to stem the tide of current discussion about teaching machines, Komoski argued that only the program, not the machine, can teach, and that "automation" means using one machine to control another. "However," he said, "the typical fifth-grade type definition -- 'automation is when machines replace men' -- points up the obvious fact that for most people the words 'automated' and 'automation' are apt to be highly charged with emotion." By sticking such words "in front of the word 'teaching', we create a hopelessly confusing, imprecise and altogether unfortunate phrase."

The second part of Komoski's speech stressed the importance of the flexible program, and the point that the nature of the program should determine the method of presentation (which may or may not be by machine rather than the other way around).

The story of the speech in The Miami News ignored the injunctions of the first part and concentrated on the teacher - machine conflict angle of the second. "EDUCATORS CRITICIZE TEACHING MACHINES" was the headline. The story combined Komoski's remarks on the "inflexibility of machines" with those of experimental Psychologist Eugene Galanter, cited as claiming that "teaching robots are 'toys' but some educators insist on having them." In ten paragraphs the terms "teaching machines," "machines," "gadgets" and "robots" occurred eleven times. The word "program" was used only twice and in the same sentence.

* * * *

What additional clues could we derive from the second pilot study?

First, when education news has to meet the test of newsworthiness required of all copy, local reporting will play up the local angle. This means that the highest ranking "name" speaker known to the host community or state is likely to receive more attention than an unknown professional expert from elsewhere.

Secondly, while in national news copy the out-of-town expert may have a better chance, the bulk of such copy may consist of hometown delegates' names and perhaps advance highlights. There is not likely to be any national follow-up or spot news unless (a) additional local tie-in is provided in individually written stories, or (b) a story is picked up by wire services or special correspondents for out-of-town newspapers.

Third, a message from the President is almost automatically news, at least locally.

Fourth, communication technology subjects, when not coming from industrial sources but from within the education profession, may make good copy when coupled with highly charged concepts structured in the familiar terms of the man-machine conflict.

Fifth, communication technology may appear in a favorable light if it can be seen -- paradoxical as that may seem -- as being on the "human" side of the conflict bringing flexibility and breaking some "locksteps of pedagogy." On the other hand, under the weight of loaded terms such as "robots," and "gadgets," the discussion is more likely to revert to Komoski's "fifth-grade type definition" under which machines clamp men and pedagogy into their own inflexible lockstep.

Sixth, editorials based on sketch and garbled accounts can hardly avoid compounding the confusion of issues sometimes engendered by the pressures and requirements of news reporting.

And, finally, as educational and other conferences take place somewhere every day of the year, and even major national professional organizations meet every week, the competition for national attention is intense. Such attention is necessarily selective; it will focus on a relatively few major events promising maximum news value.

Such speculation, resting on general observation as well as on the few cues provided by the pilot studies, preceded the major investigation.

The NEA Convention Study: Preview

At the end of June, 1961, the National Education Association's annual convention provided one of the few occasions when national press attention was focused on educational issues. All the ingredients for ample press coverage were there: extensive advance preparation and sizeable publicity staff, important Presidential message, national experts, local notables, and 10,000 hometown delegates, many of whom also acted as hometown correspondents for local papers. The world's largest professional organization assembled to air views affecting the education of every child in America. Thirty-one correspondents attended, representing major wire services, news and feature syndicates, some magazines, and newspapers west of the Mississippi.

As part of the broader study of overall educational press coverage, we obtained material, collected by a commercial clipping service and published in English language daily newspapers in the United States, dealing with the NEA convention.[6] More than 2,000 newspaper stories[7] were analyzed, weighed by circulation, classified, and tabulated. For the purposes of the present study, we made a special selection of all newspaper items involving communication technologies which were published from opening day, June 25, until a month after the convention closed June 30, 1961. (Prime purpose of the extended period was to catch editorial comment on the subject.)

As it happened, the ingredients for ample coverage of communication technology topics were also present at the convention.

In fact, only the issue of Federal Aid to Education and School Integration attracted more front-page space and headline attention in all the convention coverage than did the issue of Communication Technologies in Education.

Communication technology topics were in the headlines and leads of nearly 15 million copies of 193 stories; all other teaching and curriculum topics rated less than four million headline circulation.

More than 12 million copies of 166 stories gave readers an opportunity to learn something about teaching machines. Nearly as many carried educators' views on some audio-visual techniques. By comparison, something more than one million stories gave subscribers the opportunity to read about the convention address by Dr. Jonas Salk and Sargent Shriver of the Peace Corps.

The challenge of teaching machines inspired as many newspaper editorials across the country as did all other convention issues put together.

What was the nature of this remarkable attention?

Only headlines attacking the new technologies made the front pages: "NEA SPEAKERS ATTACK GADGETS IN TEACHING," declared The Providence Journal (circulation 61,000); "SCHOOL EXPERTS LASH MECHANIZED EDUCATION," cried The Madison, Wis. State Journal (circulation 53,500); and so on in all other front page headlines of over a million total circulation.

Three-fourths of all headlines and leads dealing with communication technologies in education played up attacks upon teaching machines, educational television, and other means of technological audio-visual instruction. Eighty-five percent of the editorials written upon these subjects used the occasion to cite these attacks or to launch their own. (See Table.)

How did this come about? These figures tell us nothing about the forces and circumstances shaping the press coverage. They provide no insight into the actual issues and themes presented to 15 million or more readers. In the following sections we shall describe the development of the press coverage, and then turn to the patterns found in the analysis.

NEWSPAPER STORIES AND EDITORIALS FEATURING COMMUNICATION TECHNOLOGY TOPICS IN THE PRESS COVERAGE OF THE 1961 NEA CONVENTION[8]

ITEMS	CIRC. AND NO. OF ALL ITEMS			PERCENTAGE OF CIRC. OF ITEMS FEATURING ATTACKS UPON OR OPPOSITION TO TOPICS
	Circ. in 1000's	No. of items	Ave. circ. per item	
All stories headlining comm. tech. topics	14,943	193	77	76%
Front page stories headlining comm. tech. topics	1,176	11	107	100%
Editorials featuring comm. tech. topics	1,868	50	37	85%

[6]This material was lent to us by the Press and Radio Division of NEA. We are greatly indebted for the courtesy.

[7]We shall use the term "story" to include editorial and feature material as well as news reports.

[8]For better readability and easier reference, all other tabular, technical and methodological material will be found in the Appendix. For details on these figures, see Appendix, Tables 5, 6, 7, 8.

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SECTION II

SHAPING AND DEVELOPMENT OF THE PATTERN

A complex event is never just covered in the press. The picture which emerges is a selective and synthetic product. Publicity staff work, reporting, the distribution system, and the individual papers' own editorial processes are key elements in shaping the final pattern.

Publicity Staff Work

The publicity staff is responsible for pre-structuring potential news events and for facilitating and guiding their perception by news media. By the time the convention opened in Atlantic City, the NEA Division of Press and Radio Relations had the bulk of its months-long work behind it.

Some of the principles guiding pre-convention press strategy have been spelled out by members of the NEA staff in their Publicity Handbook for Meeting Planners entitled "How to Win Convention Headlines".

"Good publicity coverage of your convention doesn't just burst full-blown on a waiting public," the handbook begins. "As in your garden, the ground must be dug deeply, seeded early, weeded often, and watered with tender, loving care." The principal "seeding tips" advise publicity planners that "the program must be provocative enough, both in content and in design, to attract public interest;" the topics cultivated should appeal to laymen; "speakers make news," especially if they are "names" or personalities who have "something controversial and interesting to say;" simple, down-to-earth themes are preferable to lofty or high-sounding phrases; and hometown stories featuring local names and local angles lay the groundwork for fertile coverage.

For about a month prior to the convention, a series of advance releases, reports, and special stories with hometown local angles went to every daily newspaper and many other news and feature story outlets in the nation. "Audio news releases" (excerpts of the keynote speech taped in advance) were mailed to radio stations. Manuscripts of speeches were requested from 90 key speakers, and eventually 21 speeches were received and duplicated for circulation to reporters. (We are not concerned here with relations with professional education journals, which also represent considerable staff time and effort.)

More than a thousand convention delegates were lined up as hometown correspondents to send news and pictures from the convention to their local media. A Convention News Center was organized to serve all correspondents registered at the convention. A personal file containing convention information, releases, speeches, and other materials awaited each correspondent who checked in at the News Center.

About ten percent of all newspaper stories written about the convention appeared before opening day, June 25, 1961. Most of this pre-convention coverage was the result of advance staff work; only eight wire stories and four special bylined reports were among the 226 pre-convention stories published in nearly 12 million copies across the country.

The majority of these advance stories highlighted local delegates' names, or local angles; half of them carried only local names with up to one paragraph of explanation. However, about one story out of five made use of one or both of two major advance releases stressing professional issues. One of these releases focused upon a proposal to strengthen professional qualifications required of new applicants for NEA membership. The other release attempted to introduce the theme of "Promising New School Practices" into the press coverage. Under the suggested headline of "TEACHERS TO STUDY PROMISING NEW SCHOOL PRACTICES . . ." the release began:

> ATLANTIC CITY, June 20-- A series of promising new educational practices is expected to move out of the file cabinet and into the classroom when more than 10,000 educators and observers, here for the 99th annual meeting of the National Education Association, get a complete run-down on how these practices worked in schools where they have actually been tried.
>
> Of the 400 meetings, seminars, and study groups scheduled for the week-long sessions, at least 16 deal directly with the topic, "Promising New Practices In Education." Among them are programs for the academically talented, foreign language teaching in elementary schools, the use of teaching machines, and new trends in the teaching of biology, mathematics, and other subjects.
>
> Although not all new practices are expected to be adapted wholesale, the nation's teachers will for the first time have an opportunity to review them, make comparisons, question educators who have had experience with them, and relate them to their own school needs.

* * * *

When the convention began, the Press Office and a Hometown News Center, manned by the Press and Radio Division staff of eleven and a clerical staff of more than a dozen, were in full operation. Correspondents were registered, supplied with folders, kept up to date with new material each day, given working space, typewriters, reference, telephone, and wire facilities, badges, tickets to meals and meetings, and constant hot coffee.

The care and feeding of 31 newspaper reporters, 29 representatives of educational and miscellaneous publications, and 1,008 convention-delegate hometown correspondents kept the staff busy during the convention.

On the whole, the staff was satisfied with the arrangements, attendance, and news coverage. In retrospect, one staff member made the criticism that "the program arrangement was very uneven as far as newsworthy events were concerned." Some potentially newsworthy events overlapped with others, she thought, while certain days featured little of press interest.

Another staff member made this comment: "I felt the general session speakers were not terribly exciting or newsworthy. Nor was the debate on resolutions as exciting as it was in previous years. Reporters got some good feature stuff out of the smaller sessions such as the reading demonstration, the Van Til and Raubinger attacks on teaching machines, etc. In fact, some of the reporters felt the teaching machine story was the significant story of the convention . . . "

Reporting the Convention

An NEA staff member observing press and radio operations at the convention was asked to jot down some impressions on the spot. She wrote:

"On the whole, reporters seem genuinely hard at work. Their requests are mostly of a journalistic nature. They need facts and need them fast . . . Most work by close deadlines . . . There is an air of deep concern for education.

"From all appearances, P & R makes a 'comfy' home in the Press Office for the Working Press, and this treatment is appreciated by all . . . Most are old friends of P & R staffers."

Few reporters were under specific instructions to cover various aspects of a convention in certain ways. Most felt, and said, that they were "playing it by ear."[9] When the event was part of the reporter's beat he would "play it by ear" with greater consistency and a surer touch of motifs. An education reporter, for example, was likely to have some personal convictions as well as a great deal of experience about how education issues and subjects fit the requirements of news reporting.

Senior reporters for the most important news services and syndicates were likely to set the tone of the coverage followed by many others.[10] In fact, they were often watched by other reporters and followed from meeting to meeting. Still others specialized in sidelights, local angles, or special features, letting wire services select and cover the highlights.

* * * *

The perspectives and emphases of reporting are shaped, as well as expressed, through the conventional tools of the trade and its sense of news values. They are reflected in the selection, ordering, and point of view of reportage. Among the reportorial factors shaping the pattern of press coverage are, therefore, the following:

1. Selection of meetings to be attended and/or reported.
2. Selection of speeches, etc., to be cited, paraphrased, or described.
3. Selection of passages from speeches to be cited, etc., and aspects of events to be noted.
4. The ordering of selected remarks and aspects in the sequence of the news story, keeping in mind that the order of items in the story becomes the order of relative importance, with the lead determining the headline and latter paragraphs often eliminated.
5. The relationship which subsequent items in the story are indicated to have to the central theme or headline-and-lead angle.
6. The overall approach and point of view as determined by the structuring and description of issues, by style, by juxtaposition and sequence, and by evaluative statements made or cited in the story.
7. The place and role of the individual story in the total pattern and context of relevant reporting.

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[9]For similar observations see Wood, Glynn L., "Factors Determining Newspaper Coverage of a Psychological Convention," unpublished M.A. thesis in Journalism, Stanford University, 1956.

[10]One of the senior reporters (who set the tone of much of the coverage reported in this study), described himself as "a working newspaperman whose beat is education." This gave him a perspective of a "grandstand quarterback."

> "Like any grandstand quarterback worthy of the name," he wrote, "I have some strong convictions . . . " In an article describing conclusions reached on the basis of his coverage of national educational conferences, he made the following comment regarding his own position as an observer:
>
> "Part of the fun of going to a baseball or football game is the opportunity to second-guess the manager or find fault with the way the quarterback is running the team. You can stay aloof from the practicalities, the responsibilities, and the pressures, and let sheer logic prevail . . ." ("Nobody Asked Me, But . . ." by G. K. Hodenfield of the Associated Press, in The Saturday Review, January 20, 1962.)

Advance publicity may have an influence on the shaping of these reportorial factors. But when the convention opens, headquarters staff work is mostly concentrated on facilitating the work of reporters. Special interviews and press conferences may be planned by design or upon request. Technical information may be furnished when required. Briefings or informal conversations may be held to point out program highlights of potential news interest. Copies of available speeches are circulated in advance so that reporters may prepare parts (or all)of their stories as conveniently as possible.

Reporters, expected to file one or more stories a day, are pressed to get an advance view of events. Their knowledge of the news potential of past and forthcoming events and speeches helps them develop the patterns and copy needed to meet close on deadlines.

As most of the convention news coverage devoted to communication technologies originated in one day's proceedings, let us take an advance view of the information and materials available to reporters on that day.

An Advance View of the Pattern

Monday, June 26, 1961, was the first working day of the convention. A dozen NEA departments sponsored four major meetings during the day. The Representative Assembly (governing body of some 6,000 delegate-members) was to meet for its second general assembly in the evening.

The Federal-Aid-to-Education story broke the night before with President Kennedy's message of "cautious optimism." There wasn't much more news to be had on that story, or on the smoldering integration issue, until perhaps the discussion on the platform or the report of the resolutions committee several days later.

The speaker of the evening assembly was to be Dr. Jonas Salk. A copy of his speech was circulated to reporters in advance. It appeared abstruse, technical, and downbeat. He was not about to reveal a new discovery.

Four other speeches had been circulated in advance. The first one was an address to a morning session of school principals and curriculum workers[11] prepared for delivery by Frederick M. Raubinger, Commissioner of Education of the host state of New Jersey. The title was obscure but ominous, and an interesting departure from the major curriculum theme of "Promising New Practices in Education." Raubinger's title was "A Realistic View of Practices Which Tend to Increase the Lock-Step, Destroy Diversity, and Place Pupils in Molds."

A casual glance at the text could reveal that in four brief, quotable pages Raubinger was lashing out at many things: "educational schizophrenia;" federal "centralizers," such as the U.S. Office of Education; external testing programs; "impersonalized, dehumanized teaching" through television, teaching machine, and other technological devices; tampering with the organizational structure of the schools. All these were leading to "lockstep", conformity, and molds of all kinds -- except, apparently, the prevalent ones.

"It is incredible to me," Raubinger was to say (about some of the most profusely researched teaching tools in education) "that such devices and proposals have not been subjected to closer scrutiny by the profession and the public . . . We cannot afford to have educational ideas sold to the public like soap, cigarettes, and toothpaste."

Climaxing on a note of high tension, Raubinger was to rip into "mounting, school-inspired, needless pressures, tensions, and anxieties." He was to charge that we may be well on the road "to doing actual damage to children and young people." He was to warn that is is "later than we think," and to conclude with the dark hint that if the "schizophrenic teaching profession" doesn't stand up and resist, the public "will react in its own best interest.

Two of the other speeches, circulated in advance for delivery that day, were by Dr. William Van Til, chairman of the Department of Secondary Education, New York University. One was to precede the Raubinger talk at the same meeting. Under the title of "Some Educational Practices and Programs Which Offer Promise for Greater Development of the Individual Pupil," the text revealed no striking themes or pungent comments. However, Van Til's other speech, prepared for delivery at an afternoon meeting, offered some possibilities.

Although entitled simply "Curriculum Frontiers in the '60's," and disclaiming "any intention to decry or deprecate current concern for technology and organization," the speech could (but, as we shall see later, needed not) be interpreted as an attack on "technology and organization."

Van Til's intention was to suggest a priority of concerns. At the top of his list, he placed the substantive purposes of education. Their discussion, he was to plead, has "priority over technology and organization," and "should use technology and organization as their servant" -- contentions never in dispute.

The major burden of Van Til's speech was his suggestion of the great issues of our time as the "genuine curriculum frontiers:" nuclear and social revolutions; democratic human relations; citizenship; individual, social, intellectual development; and the uses of knowledge in democratic society.

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[11]Joint meeting of the Association for Supervision and Curriculum Development, NEA Department of Elementary School Principals, NEA Department of Rural Education, National Association of Secondary School Principals.

However, on the point of individual development, Van Til's text rose to the level of "good copy": ". . . Students are often treated as though they were identical members of a vast anonymous mass; individuals are drowned in the tide of humanity; personality is lost in the academic lockstep."

Despite Van Til's admitted "innocence" of teaching machines, such passages as the above could lend themselves to an account of leading educators joining Raubinger's "revolt against the machine" -- either technological or federal or both.

The advance material at hand clearly indicated the technological theme as the key to the day's press coverage. The last prepared text of the day's speeches was that of a national leader in audio-visual education, Dr. Edgar Dale of The Ohio State University. His address was prepared for delivery at a joint meeting of audio-visual educators, school librarians and university people.[12]

Dale's speech bore the promising title "Training or Education -- A Critique of New Teaching Materials." But it was a critique from the inside rather than a lambasting of machines uninhibited by familiarity with the issues. It did not easily lend itself to quick development of the plot for "revolt against the machine."

Dale opened his remarks in a discouraging vein. "New ideas in education," his text said, "are subjected to rigorous analysis and criticism not demanded of old ideas." Dale was to note that "It's almost like buttonholing Gutenberg shortly after he developed his printing from movable type and demanding an exact statement as to . . . what print can do that manuscript cannot." He declared that all teaching methods and materials should be able to prove their value.

Then Dale was to proceed to his major point: "Programed teaching suffers from the weakness of all systematic approaches to learning;" it helps solve problems rather than frame them, answer questions rather than raise them, assimilate perspectives rather than create them. The difference, Dale was to argue, was the difference between training and education, both legitimate and necessary objectives.

"I am not arguing against system or programing," Dale was to point out. "I simply raise the question: At what point do you grow up, become responsible for your own learning, become creative in your varied approaches to life situations, learn to be a problem-framer as well as a problem-solver, learn that no classification system is final?"

While clearly no candidate for the "revolt" news story lead, Dale's speech conceivably could fit the context, if placed in a position implying that he "echoed" charges by Raubinger and Van Til.

The rest of the program of the meeting at which Dale was to be the featured speaker revealed other possibilities, although no prepared texts. "Today's Technological Aspects in Education" was to be the title of an address by James D. Finn, professor of education at the University of Southern California, and director of NEA's Technological Development Project.

Also to appear on the program was Kenneth Komoski, president of the Center for Programed Instruction. And there were to be technological demonstrations of possible relevance to what was most likely to become the pattern of the day's press coverage.

The program also revealed meetings on other topics, including a session on the potentially controversial "team teaching." But the subject of communication technologies was timely, far-reaching, and easily reducible to patterns familiar to every news reader. It lent itself to vivid news treatment, and could be prepared on the basis of texts circulated in advance. It also involved the participation of some dynamic "name" speakers who, judging by past performance, could be counted upon to embellish their points with colorful extemporaneous remarks.

Communication technology in education became, indeed, the exclusive focus of the day's convention coverage, on the basis of the relevant texts, speeches, and events previewed above. The subject also became the major single curriculum topic receiving attention in the convention press coverage. Next we turn to the analysis of the pattern of what the reporters cited above saw as "the teaching machine story . . . the significant story of the convention . . . "

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[12]Sponsored by the Department of Audio-Visual Instruction, American Association of School Librarians, and Association for Higher Education.

SECTION III

THE PATTERN: FINDINGS OF THE PRESS ANALYSIS

Nearly 15 million copies of 193 convention stories printed in daily papers across the country highlighted subjects of communication technology in education. More of the high-circulation newspapers selected stories on these topics than on other convention topics. (The average circulation of all English language newspapers in the U.S. is about 36,000; the average circulation of all stories about the NEA convention was about 63,000; and the average circulation of stories about communication technology topics at the convention was 76,000.)

One fact will suffice to indicate the significance of the news distribution system in shaping press coverage. Half of all the circulation devoted to communication technology topics, firmly establishing the major theme of the press pattern, could be accounted for by a single Associated Press wire story.

Almost the entire news coverage originated in the speeches and events of the single day previewed above. More than three-fourths of the 15 million relevant stories dealt with the talks by Raubinger, Van Til, Dale, and Komoski. Most of the rest were devoted to one of the demonstrations.

Further findings indicate some characteristics of the editorial process shaping press coverage. Three-fourths of all news stories on communication technology subjects featured attacks or criticism in their headline and lead but only such stories made the front pages. One-third of all editorials on convention topics other than communication technology were opposed to or critical of their subjects; but 85 percent of all editorials were critical of communication technologies, either echoing the charges of the major theme of news coverage, or pooh-poohing the claims dominating the minor theme of the pattern.

The two themes turned out to be among those also apparent in the findings of the pilot studies. One, the "man-machine conflict" issue took the form of the battle of "teachers vs. the machine." Its counterpart, the Utopian vision of the things machines can do, we shall call the theme of the "wonders of technology."

Major Theme: "Teachers vs. The Machine."

A combination of circumstances, including the irresistibly quotable nature of the Raubinger talk and the fact that as highest ranking "name" speaker of the host state he would make at least local news anyhow, appears to have led to selection of Raubinger's remarks to sound the key motif for one of the likely themes. The news distribution, selection, and editing process made that theme -- the issue of "teacher vs. the machine" -- the dominant one in the press coverage.

The AP - UPI Line

As we have noted above, a single Associated Press wire story accounted for half of the total circulation of all "communication technology" convention stories. This story was printed in about 7,619,000 copies by 91 of the larger circulation papers (average circulation 83,000). The story began:

> Atlantic City, N.J. (AP) -- Educational gimmicks and gadgets such as teaching machines and television are being peddled to the public like soap, cigarets, and toothpaste, New Jersey's state commissioner of education charged today.
>
> Frederick M. Raubinger, speaking out at the annual convention of the National Education Association, loosed a blistering attack on what he called "impersonalized, dehumanized teaching.
>
> "We are not only moving toward lockstep and conformity," he said, "but I suspect that we may be on the road to doing actual damage to children and young people."

After establishing the charge, the story pinpointed the "issue" and broadened the base of the attack by reference to "other convention speakers" who "echoed" the charges:

> "Raubinger's charge that all classroom devices must be used as tools by the teacher rather than substitutes for him, was echoed by other convention speakers."

Needless to say, never in the history of education, let alone at the NEA convention of 1961, was there any serious controversy about the contention purportedly advanced in the "charge" of the "critics." But the "issue" was now joined. "Other convention speakers" "echoing" Raubinger's "charge" (at different times and places and from texts prepared in advance) were Van Til, Dale, and even machine programer Kenneth Komoski.

Ignoring Van Til's disclaimers, including his remark that "Of teaching machines I am as yet innocent . . .", and omitting mention of the major burden of the speech, the story picked up those passages from the text and from his extemporaneous remarks which would best fit the context of the major theme:

> "In our schools, Van Til said, "students are often treated as though they were identical members of a vast, anonymous mass. Individuals are drowned in the tide of humanity. Personality is lost in the academic lockstep."

> Van Til also told convention delegates that improper use of teaching machines and television is really not progress but a step backward. Those who would substitute machines for teachers, he said, threaten a return to the 18th century industrial revolution when "children were enslaved to machines."

About one million of the 7,619,000 copies of the AP story ended on the colorful note of children "enslaved to machines." The story, however, went on to paraphrase Edgar Dale as saying "teaching machines are useful only in helping students to solve problems. It is just as important for students to learn how to ask questions as to answer them, he said."

As this didn't quite sound like Raubinger's "actual damage to children" or Van Til's "child slavery," the story returned to the teacher vs. machine theme (a dichotomy not found in Dale's speech), and by placing Dale squarely on the side of "education" (associated with the teacher) as against "training" (associated with the machine), he was made to fit the story line, "echoing" what the lead billed as a "blistering attack."

Only about two and a half million of the more than seven and a half million copies of the story went beyond Trojan Horse Dale, seen as supporting the attack from the inside. These stories concluded with the remarks of an exponent of programed instruction (i.e., teaching machines) seen (at least indirectly) as bringing up the rear of the Fifth Column:

> P. Kenneth Komoski, president of the Center for Programed Instruction, didn't attack teaching machines directly, but he told the delegates they should save any money they might be planning to spend on the box-type teaching machines.

In a few "clarifying" paragraphs (progressively eliminated from the tail of the story by a growing number of newspapers), Komoski explained that "box-type" teaching machines (a meaningless distinction for most readers) are "the Model T's" of the industry, are "inflexible," and, along with programs to go into them, are "extremely expensive." These remarks derived their significance and validity from the total context of Komoski's speech. In the context of the news story they become a part of the charge of Raubinger's light brigade on to do battle with "the machine."

Points germaine to the central direction of the speakers' comments received attention only if they could be presented in the context of that battle. Other speakers at the same meetings (such as Finn), whose comments were not reconcilable to the major theme, were ignored.

The catchy news lead and provocative slant of the story was well suited to the requirements of flashy headlining. The major theme was explicitly recognized in at least one headline which spelled out "TEACHERS VS. MACHINES" over the story. But the angle was not lost on any headline writers.

A check of words and expressions used in headlines over the stories showed "GADGETS" and "GIMMICKS" led in frequency of usage, (used in 32 and 29 headlines, respectively), followed by "ACADEMIC TRICKS" and "PROPS," "IMPERSONALIZED" and "DEHUMANIZED" schools and teaching, "CANNED," "MECHANIZED" and "MACHINE" teaching or education or methods. Typical combinations were "PEDDLED LIKE SOAP; TEACHING DEVICES LASHED; DEHUMANIZED GADGETS;" or "MACHINES NO SUBSTITUTE FOR TEACHERS," or "EDUCATORS RAP MACHINE USE."

A count of headline verbs used to indicate what "educators" did with "machines" showed "HIT," "RAP," "LASH," "BLAST," "ATTACK," "CRITICIZE," and "ASSAIL," in the lead with frequencies ranging from five to 14. These were followed by "DEPLORE," "RIP," "FLAY," "SCORE," "LAMBAST," and "DECRY." The arsenal of headline terms was supplemented by having "machines" declared "THREAT TO STUDENT," "DAMAGING TO CHILDREN," and "HANDED DUNCE CAP" by educators, or education seen as their "VICTIM."

* * * *

Most other reports followed the AP line. The second largest bloc of stories covering the subject of communication technologies came from United Press International. The UPI story was a pale carbon copy of the AP. It repeated all the "good" quotes, paraphrased the same points, and came to the same synthetic conclusion. Only the lead was different. It arrived at its depiction of the "severely critical attack by leading educators," in the following way:

> Atlantic City, (UPI) -- It washes your dishes and it tabulates your inventory -- but should a machine teach your child?
>
> The increasing use of mechanical devices in overcrowded classrooms to aid understaffed schools was the subject of a severely critical attack by leading educators at the annual convention of the National Education Association.

The third major source of stories on the subject was written by Terry Ferrer and syndicated through The New York Herald Tribune News Service. It took essentially the same line. The Herald Tribune (circulation 337,000) headline claimed "TEACHERS HEAR TV CLASSES ASSAILED AS 'SCHIZOPHRENIA'." The story began:

> Atlantic City, N. J. -- Teaching machines, television, and other educational "gadgetry" were soundly rapped by educators here yesterday as destructive of pupil individuality and as symptoms of "educational schizophrenia."
>
> Several speakers told sessions of the convention of the National Educational Association that machines were threatening to "place pupils in molds" and increase educational conformity rather than individuality.

Special Stories

Most other special stories followed the major theme without much deviation. Perhaps the only significantly different twist on that theme was a report written by Georgie Anne Geyer and distributed through The Chicago Daily News Syndicate. The lead of the story dealt with a speed-reading demonstration (discussed below). About half way in the story (where several of the subscribing papers stopped the account), a transition paragraph stated:

> But this was only one of dozens of demonstrations and talks about new education methods that is giving a sudden headiness -- as well as a terrible soberness -- to the consideration of the future of American education.

The story then went on to note Van Til's major point that "The greatest challenge of the '60's is not technology or organization.

> "Instead," he said, "the greatest challenge is developing democratic human relationships among young people of varied races, religions and social classes and helping young people to understand and come to grips with the international social realities of their time."

* * * *

Few other stories presented Van Til's arguments in the context of his own speech rather than as part of the plot of the teacher-machine conflict story. Those which did appeared to be locally written. "NEED FOR SOCIAL EDUCATION STRESSED BY NEA SPEAKER" stated the headline of one account in the Sheboygan, Wis., Press (circulation 27,000). The lead cited Van Til as holding that "Many of the so-called 'new frontiers' in education have little or no relation to the 'major purposes of education in our times'." The story went on to say that . . .

> Coming before either technology or curriculum organization, Dr. Van Til listed such items as helping young people come to grips with social realities; developing democratic human relationships among young people of varied races, religions, nationality backgrounds and social classes; and teaching young people to act as intelligent citizens on "the great human issues of the times."

In another locally written story, The Tyler, Texas, Courier-Times (circulation 9,400) gave essentially the same information. And Bob Beard of the Greeley, Colo., Tribune and Republican (circulation 12,000) spiced a similar account of the Van Til speech with ironic commentary of his own. "Under the heading of 'Mouth Agape' comes a report of a speech made by Dr. William Van Til . . . " started the lead. After citing the same paragraph as The Sheboygan Press, Beard wrote:

> This big mouthful can hardly be argued, although there are between-the-lines and on-the-line echoes of the Social Adjustment Firsters, who wanted to make every school a play school.

After a few more quotes, Beard commented that "This is the old cry of the progressive educator refurbished, " . . . and . . . there is an awful kind of consistency in this world of Alice, and most teachers, when they are not at meetings being called educators, flee the tea party."

These minor deviations from the general line of reporting are of little interest on their own. But they indicate that, when reported or commented upon in a context of their own, some of the speeches lead to issues and considerations different from those presented to the vast majority of readers.

* * * *

Edgar Dale's comments were noted in 86 stories and printed in over seven million copies. None reported them in the context of the speech itself, and with respect for the integrity of the speaker's arguments. James D. Finn spoke briefly on the implications of technology for education, and touched on the NEA Project on Technological Development for which he is principal investigator. His remarks were reported in one story by Herbert G. Stein for The Pittsburgh Post-Gazette & Sun-Telegraph (circulation 272,000), and later noted in an editorial in the Albuquerque Journal (circulation 45,000). The news story was a "reaction piece" to the major line of coverage. "AUTOMATION IN TEACHING IS DEFENDED," stated the headline. "Educator Lashes Critics of Machine Use in Classrooms," declared the deck. The story began:

> Atlantic City, N. J., June 28 -- A specialist in automating the schoolroom struck back here today at critics who, during this education convention, have called teaching machines "tin cans to hold paper" and "automatic page turners."
>
> "I am getting tired of the lambasting machines are taking," said Dr. James D. Finn, education professor at the University of Southern California, Los Angeles.
>
> "Now the typewriter is considered a pretty handy gadget, and no one here would argue against the flush toilet, and no housewife would oppose the washing machine," he said. "One doesn't have to be criticized as 'machine oriented' just because he appreciates machines."

Finn declared, according to the story, that "I have never seen a classroom teacher who had her hands on this stuff who was afraid of it -- but the teachers don't make speeches."

Some did, but only one small paper reported it. In another reaction piece headlined "EDUCATORS TO CONTINUE USE OF MACHINES," The Hayward, Calif., Review (circulation 29,900) wrote:

> Some South County educators, in response to the recent blast leveled at teaching machines by representatives at last month's National Education Association convention, have reported a general disagreement with statements made by NEA speakers.
>
> And they will continue exploration and usage of these machines . . .

The story went on to describe programs of the local schools, and to cite teachers' opinion of Raubinger's reported statements being "premature and invalid."

Editorials: "Gentlemen of the Jury . . ."

The news coverage gave the subject the dramatic twist of a great human battle which, while removed from practical decision-making by its location in rarified academic atmosphere, did have some ramifications in every locality and, indeed, in every pulsing human heart. Issues of purported universal relevance, colorfully presented in an abundance of news copy, appeared to provide editorial writers with their greatest challenge. They rose to the occasion in greater numbers, and larger combined circulation, than to the challenges presented in all other convention issues put together. Most of them rushed to the defense of the embattled "teacher" in his fight with the implacable education "machine." Some defiantly jumped on the bandwagon of "progress" against "diehard" educators not sufficiently concerned with "teacher productivity." A few declared plague on both houses, wondering whether -- with all these "alarming words for parents and taxpayers" -- the tax money "spent for education these days is being spent sensibly."

With the organized profession itself being implicitly on trial, the case for the prosecution had four lines of attack clearly defined in the major theme of news coverage. The editorial D.A. could (a) come to the side of those "revolting" against "machines;" (b) indict the profession for allegedly espousing the dehumanizing trend toward "machines;" (c) rescue the "art of teaching" from these dehumanizing trends; or (d) attack the profession for promoting diehard, self-seeking opposition to "progress."

The editorial defense had a more difficult task. In effect, it had to plead for cease fire amidst the exciting fireworks. It had to examine the premises implicit in the news coverage, and to strive for a perspective out of tune with the total context of news available to most readers. Only one in five editorials attempted that task. None could be considered entirely successful.

The Case for the Prosecution

The "prosecution's" case was presented in four-fifths of the editorials written on the major theme, with nearly nine-tenths of the combined circulation of these editorials.

Among these was the major source of editorial opinion on all communication technology topics, comprising half of all editorial views on the entire subject. It was a syndicated piece appearing in 25 of the smaller newspapers (average circulation 20,000).

More moderate in tone and temperate in language than the news stories upon which it was based, the editorial followed from the same premises and reached the same conclusions. "The art of teaching" it began, is " 'the art of awakening the natural curiosity of young people,' wrote Anatole France. Frederick M. Raubinger doubtlessly would agree."

The editorial went on to observe that Raubinger (and by implication Anatole France) "attacked the trend toward teaching via machine and television" at the NEA convention. "He and other speakers agreed that there is no substitute for a good teacher and that students too often are treated as though 'they were identical members of a vast, anonymous mass.' To these conclusions we offer a strong amen."

Having joined into unanimous agreement on an undisputed "issue," and having identified the allegedly contrary "trend" with machine-inspired inhumanity, the editorial went on to plead the foregone conclusion: "Educational gadgets . . . should be used as teaching tools, not as substitute teachers."

In addition to the 25 newspapers running the canned piece verbatim, several others used it as basic text, but added their own comments. Still others paraded the key phrases of the news coverage ("impersonalized, dehumanized teaching" . . . "moving toward lockstep and conformity" . . . "individuals drowned in a tide of humanity" . . . "personality lost in the academic lockstep" . . . "academic pinball machines" . . . "ghostly voices whispering persuasively over headphones," etc.) before the eyes of the reader as they came to the expected conclusions. "ACADEMIC PSYCHOSIS," "TEACHERS VERSUS MACHINES," "NEEDED WARNING," "THE MAN SAID A MOUTHFUL," were typical editorial headlines.

The vision of "Johnny and his school friends" being "identical members of a vast anonymous mass," is properly a matter of concern," declared the Lancaster, Pa., Intelligencer Journal (circulation 33,300). "America, in the international jungle of the latter half of the 20th century, cannot afford a Johnny who is an automaton, whose thinking depends on a machine."

Some editorials were moved by home pride to make local exceptions. "Individuals are drowned in the tide of humanity," exclaimed the Spartanburg, S. C., Herald (circulation 33,600), but "some educators and some Boards of Education -- Spartanburg's among them -- are actively battling the tide of mediocrity."

In a similar gambit, the Roanoke, Va., Times (circulation 51,600) compounded the confusion engendered by its news coverage. After identifying teaching machines and television with "educational gadgetry . . . destructive of pupil individuality . . . symptoms of 'educational schizophrenia'," asserting that they "place pupils in molds and are causing impersonalized, dehumanized teachers" [sic.], the editorial hastened to assure Roanokers that "the NEA speakers were leveling their guns at machines, not the programed type of instruction used in Roanoke." Then it struck the theme of alterior motives causing all this furor:

> But we can't escape the suspicion that, since the NEA membership is made up of teachers, any new idea, good or bad, which might result in fewer teachers would automatically bring down the wrath of those who make their living by teaching.

The suspicion of economic motive was noted in other editorials, and embellished in some. In its full context, the economic theme appeared to work in this way: when "machines" were perceived as "expensive" innovations with no hope of "alleviating the teacher shortage," but probably adding to the total tax bill, they were seen as robots threatening to replace "good" teachers. But when "machines" -- robots though they may be -- were seen as offering some hope of "increasing productivity" without a proportionate increase in cost, then they threatened (and were opposed by) already mechanized, selfish, time-serving, feather-bedding teachers.

Thus the Montgomery, Ala., Advertiser (circulation 65,000) commented:

> . . . Teachers who merely parrot their lectures, who fail to inspire and encourage, are merely human machines. And they are neither as efficient or as cheap as some of the "gadgets" replacing them.
>
> The NEA bleats are thus undeserving of much public sympathy. The arguments against mechanization, in a profession already mechanized by tired dogma and time-serving teachers, are essentially the same as organized labor's attacks on new machines to do the job better.

An editorial column in the Salt Lake City Deseret News & Telegram (circulation 88,000) was typical of a more restrained tone on the same theme. It ascribed Raubinger's chamber of horrors to "stolid opposition to change," and identified it with the lethargy of the profession. "Perhaps no major undertaking of the human race is as difficult to reform as that of teaching," it commented. "Educators would render the nation and themselves a tremendous service if they'd adopt a more positive attitude toward changes that give promise of increasing teacher productivity."

But The Bangor, Me., News (circulation 76,000) was not so considerate. It coupled Raubinger's remarks with those of Maine's Commissioner of Education Warren G. Hill at the convention to make the point: "Surely teachers such as Commissioner Hill describes are not being underpaid; they are being overpaid." Alluding to the "union-style package deal" pay for teachers, and noting "actual damage to children and young people" done by "teaching machines and television," the editorial came to the logical conclusion:

> These are rather alarming words for parents and taxpayers. It makes the layman wonder if all the additional money being spent for education these days is being spent sensibly.

The Case for the Defense

What we call "defense" is not of "the machine" orof "the teacher" on terms structured by the news coverage. It is, rather, a defense of three principles:

1. Defense of the integrity of professional discussion at a professional convention.

2. Defense of an issue of some significance against total obfuscation.

3. Defense of the distinct editorial function of not taking the issues for granted, of probing the premises behind the emphases and perspectives of news and headlines.

Eight out of 42 editorials printed on the major theme rallied to the "defense." Their combined circulation was little more than one-tenth of the total. All took their cue from critical comment reported in the news. But they made an attempt to clarify the issue and to shift the scene and the grounds of the discussion out of the "battle" of the headlines.

One syndicated editorial published in six small papers (average circulation 13,000) noted that the reporting of the issue "produces a feeling that what everybody is talking about is 'the machine.' " "Actually," the editorial explained, ". . . 'Teaching machine' is a term rapidly being accepted as descriptive of programed education even though no mechanical or electronic aids may be employed." In a few sentences the editorial proceeded to define programed learning, and to explain (not too clearly) its role in instruction.

The second editorial for the "defense" appeared in The Albuquerque Journal (circulation 45,000). It began on a minor note of the major theme:

> The warfare of some diehard educators against machines, as old as the use of school movie projectors, broke out with new heat at the recent National Education Assn. convention in Atlantic City.

The editorial went on to cite James D. Finn's comments, reported in a special dispatch to the Pittsburgh Post Gazette & Sun-Telegraph (see above), and to conclude on its own:

> It is clear that the educational processes in America are in revolution. This goes deeper than Sputnik fever. The problem is, as the population soars, how can all students be given the advantages of the most complete education?

The third and last editorial voice for the "defense" appeared in the Cedar Rapids, Ia., Gazette (circulation 64,600). It reviewed the positions taken in the "battle," and went on to comment:

> Instead of viewing the machine as a natural foe of individuality, knowing observers reserve most of their concern for the "programs" that go into it. These are the sequential information-and-response items that lead a student through his subject matter. At the real core of the problem, they far outweigh the mechanical gadgetry in significance.

After a brief look at some of the pitfalls of programed learning, the editorial concluded:

> What holds the real promise is an exciting possibility that the new devices can lift from teachers some of the drudgery that saddles them now and afford more time for what the good ones do best: Lead discussion, stimulate thinking and work with students individually.

Minor Theme: The "Wonders of Technology"

A different combination of circumstances resulted in the selection of the key motif of the other likely theme -- the "wonders of technology." The major factors in that selection appear to have been quasi-commercial advance publicity, and on-the-spot direct contact, facilitated by representation on the program. NEA staff rules, excluding (for the first time) publicity agents from the Press Office,[13] might have been responsible for the "wonders of technology" becoming the minor theme of the press coverage.

Speed-Reading

The bulk of the coverage devoted to the minor theme dealt with a demonstration scheduled to follow the meetings at which Raubinger and Dale were featured speakers. The demonstration was listed in the convention program simply as "Wood Dynamic Reading Process -- Evelyn N. Wood, assistant professor of reading. University of Delaware, Newark, Del."

The "dynamic" reading process offered little more than what had been taught in reading development programs across the country, and some well-known "gadgets" such as the metronoscope, reading accelerator, phrase-flasher and the prep-pacer. But the name of Mrs. Wood was likely to ring bells in the minds of alert reporters. She was founder of Reading Dynamics, Inc., a rapidly expanding business enterprise. Her first publicity coup had been getting Senators Symington, Talmadge, Bennet, and Proxmire to demonstrate her technique on television to a national audience. Her second master stroke appeared to be the exhibition of a 17-year-old "reading wizard" at the NEA convention.

Judging by the results, the event was calculated to focus attention on "wonderful things reading can do," and to evoke "gasps of astonishment" at the "revolutionary reading method," while keeping the specific nature of the method, its associated hardware, and its representative achievements in the background.

Thirty-six of the larger newspapers (average circulation 130,000) carried the news to well over three million readers. Most of them printed special stories featuring the event.

The major source of these stories was an Associated Press dispatch. The dateline was not even Atlantic City where the event took place, but Wilmington, Del. The story follows:

> Wilmington, Del. (AP) -- "I found what wonderful things reading can do," said Robert Darling, Jr., a 17-year-old reading wizard.
>
> Darling, a high school senior, demonstrated his skill to the National Education Association's convention in Atlantic City.
>
> He and Louise Mahru, also of Wilmington, read 120 pages of a book in three minutes, and then were questioned 20 minutes on the content of what they read. They passed all tests with flying colors.
>
> Darling said the skill he possesses is a "basic training of eye movement: You move your eyes down the page, taking in concepts and thoughts, instead of individual words."
>
> This skill, Darling said, was learned under the guidance of Evelyn Wood, the founder of the Reading Dynamics Institute.
>
> Darling said the course involved two and a half hours of instruction a week and an hour a day of practice.
>
> He added, "I have read 7,000 books since I finished the course 15 months ago."
>
> "It was the best investment we ever made," Darling commented. He said the cost was just over $100 for the 12-week-long course.
>
> The Reading Dynamics Institute now comprises 22 centers in the country, with headquarters in Arlington, Va.
>
> Mrs. Wood developed the new reading technique through her own experience.

The second major source of stories was a syndicated Chicago Daily News Service report. It was printed in six large papers. Datelined Atlantic City, the story depicted a dramatic scene:

> Atlantic City, N. J. -- The bright, 17-year-old boy stood before 150 people running his eyes and fingers down each page of a book.
>
> The reading of each page took one second.
>
> After several awed and silent moments, he faced the audience and told them clearly and concisely what he had read.
>
> Question came: "How long does it take you to read an average book?" "Ten minutes," he answered.
>
> "Tell them how many books you've read this last year, Bob." urged a friend.
>
> "Seven thousand," he answered, smiling.

However, readers were assured, "This is not education fiction of the future but a real demonstration of a revolutionary reading method that raised gasps of astonishment when given at the National Education Association convention here this week."

Later in the story the technique was identified as the "Wood Method." The speed-reading feat was counterpointed by reference to Van Til's speech on "social education" rather than technique or organization being the "greatest challenge of the '60's." Half of the papers which carried the story omitted the latter half.

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[13] One NEA staff member commented that some reporters still requested that "we get these people off their necks."

The Wood speed-reading publicity-wave rolled on on its own momentum for some time. It receded in an editorial backwash which left its irate and ironic comments strewn on the beach of the battle over another "issue." Had more newspapers done a little digging, or asked the obvious question, posed only by Mary Kelly of The Christian Science Monitor (circulation 156,000), the editorial rampage might not have been necessary.

Miss Kelly described the Darling demonstration in four paragraphs. "But," she added, "some educators are a little less than impressed." And she posed the question, "In other words, is this a stunt or a standard?" Citing the opinions of national authorities on reading research and teaching, the story permitted the reader to come to his own conclusions.

The basic question posed by Miss Kelly was not raised in any other account or editorial comment on the subject. Reported and taken at face value, the wonder of reading technology became the easiest target for editorial brickbats next to the "teaching machine." Speed reading inspired more editorial comment than federal aid to education, integration, or any other single global, national or local topic (save "teaching machines") raised at the NEA convention.

The comment was not all unappreciative. The Albuquerque Journal (circulation 45,000) thought that the demonstration "proved" the point of "mechanical means in education." And the Durango, Colo., Herald (circulation 4,000) envisioned the possibility of a "scientific breakthrough" toward "higher life" beginning "with the current reading experiments."

The Fostoria, O., Review-Times (circulation 6,000) admitted that "for utilitarian purposes, speed reading is desirable." But it also struck a theme running through all other editorials when it commented that "This is the kind of progress that awakens the latent reactionary in us all."

Five out of eight editorials expounded only negative reactions to what appeared to most the voice of the NEA on the subject. (Mrs. Wood or her firm were not mentioned in editorial comment.)

"Spare the readers," asked the Syracuse, N. Y., Post-Standard (circulation 100,000), concluding on the striking non-sequitur that "Terse prose is better than speed reading." The Topeka Capital (circulation 66,800) mused before coming to its skeptical conclusion: "Speaking as a doddering reader who has yet to be inveigled into a rapid reading course, we doubt we could turn 120 pages in three minutes, let alone read each page." Other editorials expressed such feelings as "There haven't been 7,000 books in the past year that were worth reading;" "The best way to skip a book is to skip it entirely;" and "It irritates us" or "We even tend to resent being told . . ."

There is no reason to assume that editorial skepticism hurt Reading Dynamics, Inc., reported to be a thriving network of 22 branches across the country. Nor is it likely that editorial comment printed in half a million copies had a significant effect on the impact of the original story distributed in three million copies. But, in awakening "the latent reactionary in us all," the editorials might have voiced a not uncommon reader reaction to the original publicity.

Other Topics

The ambivalent wonders of books read at lightning speeds appeard to symbolize, within the minor theme itself, the total ambivalence of press coverage on communication technology topics. Glowing accounts of unexplained technologies breaking through ill-defined barriers provoked equally uncritical response from opposite sides of unexamined issues.

The New York Herald Tribune's "educational schizophrenia" story (see above) perceived this ambivalence in terms of the profession and of the convention itself:

> While commercial exhibitors at the convention scheduled endless demonstrations of new teaching devices in the basement of the auditorium, criticism of the Secondary Education Department at New York University pictured a visitor from Mars who might see education on earth "exclusively through shadows on the silver screen, lights flashing and bells ringing to proclaim 'tilt' on academic pinball machines, and ghostly voices whispering persuasively over headphones."

A special story in The Philadelphia News (circulation 270,700), originating on the commercial side of the fence, gave information about AutoTutor and AutoFilm equipment demonstrated at the convention. Headlined "CAN OF OIL TO REPLACE APPLE FOR TEACHER?" the story began:

> Atlantic City. -- The proverbial apple for the teacher soon may be replaced by a can of oil. The student of the near future may dutifully carry lubricants to school for his teacher--a compact machine resembling a portable TV set.

As the issues were structured, it was difficult for a story on either "side" to gain much currency unless it could be perceived in Orwellian shades. A major NEA study on the long-range impact of automation on education, announced at a special press conference, rated half as many headlines as Raubinger's lambasting of "machines," and less circulation than the feat of the "reading wizard."

An NEA news release on exhibits, given to all reporters and mailed to local papers by hometown correspondent convention delegates, fared even worse. The story had no provocative twist, and it conjured up the non-Orwellian vision of a "dream-come-true schoolhouse." Stressing both the teacher and "equipment to support him," the story did not fit either the major or the minor themes of the press coverage. It began:

> The teacher may be the most important part of a classroom -- but judging by the 155 exhibits at the National Education Association convention in Atlantic City, the modern teacher is not lacking in equipment to support him.

> From fluorescent, plastic paper clips and automatic book marks to planetarium projectors and modern fire alarm systems, the 10,000 teachers and other educators convening here are getting a glimpse of what it could be like in a dream-come-true schoolhouse.

The above release was noted in five small papers. Its total circulation was less than half of an Army publicity story released at the convention describing a "dramatic 30-minute demonstration" of "Nike in the Attack" for the benefit of interested delegates.

Greater, although only regional, attention was given to an AP story reporting that "A closed-circuit regional educational television system is envisioned as an outgrowth of a special TV network linking Columbia, S. C., with Atlantic City, N. J." The story quoted the general manager of the South Carolina Educational Television Center as saying that "an Eastern Seaboard network is possible right now."

The story was printed in 10 papers with a combined circulation of over half a million. It evoked favorable editorial comment in the Greenville, S. C., News (circulation 80,500). The News commended the Governor and General Assembly for the "pioneer project" in which South Carolina is "leading the nation," and concluded that "enough is already known to indicate that educational TV definitely has a place in our public school system."

Then the editorial offered hope for interesting "beneficial side effects of this demonstration."

> Our main purpose is to educate our children as best we can, but we can't help hoping for some beneficial side effects of this demonstration. Perhaps some of those present from other parts of the nation will realize as never before that South Carolina is determined to educate its children, regardless of color or creed and despite agitation for changes in its social patterns.

The implication was clear: among the benefits of ETV in the South might be a demonstration of education without integration.

SECTION IV

FINAL OBSERVATIONS

The discussion of communication technologies at the 1961 National Education Association convention attracted major attention in the U. S. daily press. Larger circulation newspapers paid relatively more attention than smaller circulation newspapers. A handful of wire stories dominated the entire coverage of nearly 15 million copies of 193 stories printed across the nation. The smaller newspapers serving "Hometown America," to which the fate of most U. S. schools has been delegated, relied almost exclusively on the wire services to bring convention news of communication technology developments to their readers. Publicity releases sent by delegate correspondents from the convention had little effect on hometown coverage of these subjects.

The issues themselves were, on the whole, structured in familiar terms. Free-swinging remarks by a name speaker from the host state, circulated in advance, provided the key motif for what appears to be a likely pattern of "technological" press coverage. The issue of the "man-machine conflict" seems most likely to dominate when "technological" news copy originates in a non-industrial or public institutional context. At any rate, the theme was dominant in the pattern analyzed in this study. Taking the form of "teachers vs. the machine," the theme monopolized all front page space devoted to the subject of communication technologies, and colored nearly all relevant headlines.

Other speakers were selected for attention, and passages from their texts were chosen for citation and for positioning in news stories, in direct relation to their potential contribution to the major theme as perceived by the press.

Speakers most frequently cited, in order of descending circulation and number of stories, were Raubinger, Van Til, Dale, Komoski, and Finn. ("Hometown America" received a relatively stronger measure of this scale of news selection, ordering, and editing; the lower the average circulation, the greater was the likelihood of the latter names being trimmed off before publication, or stories involving them not being carried at all. See Appendix, Table 9.) Remarks running counter to the main theme, even when expressing the declared intention or main point of the speaker's message, and whether circulated in advance or made extemporaneously, were largely ignored.

A few scattered voices did not join in the chorus echoing and amplifying the resonant tones of popular prejudice and professional confusion. On the opposite fringe, some editorial voices grabbed the opportunity provided by the press selection and treatment of the issues to snipe at their favorite targets from sides of their own choosing.

* * * *

The "miracles" of the machine age and the glittering promise of every innovation marketed gain their currency largely through newspaper publicity. Wonders of electronic marvels and awe-inspiring "revolutionary" techniques composed a minor but significant theme of convention press coverage.

On the whole, commercially originated copy (advertising or news) is either played "straight" or, more likely, given a provocative twist playing up "revolutionary" implications. Such items originating in a mixed context of public and private institutions are likely to receive mixed treatment. Convention stories dealing with the "wonders of technology" (about one-fourth of all stories on communication technology topics) exhibited the characteristic ambivalence of press treatment of these topics within the minor theme itself. The dominant form of this was the publicity given to quasi-commercial "news" items, counterpointed by editorial scrutiny of the claims -- but not of the issues -- raised in the publicity.

The "wonders of technology" thus appeared to have been muted by the context in which they originated. They seemed to trigger, rather than overcome, this treatment and editorial scrutiny accorded "technological" copy in the total pattern of educational coverage. "Straight" news publicity inspired by a less than impressive commercial source in an educational setting backfired in a volley of editorial attacks upon unexamined educational claims.

The apparent ambiversion of the pattern of the press coverage may be seen as rooted in some of the genuinely conflicting aspects of the role of technology in modern society. But the attempts made at the convention (notably by Dale, Finn, and Komoski) to illuminate this fuzzy background of historic ambivalence and humanistic fears rated little or no attention in the news coverage. The press used all ingredients of "good copy" to depict dramatic encounters of ominous portent vividly related to vague fears and hopes of readers, fought with vigor and dash, and reverberating in the editorial columns of the same exciting pages. Over what? Few seemed to know, or care.

* * * *

Can we generalize from this case study? Only with due caution. The study inquired into the operation of general processes under certain specific conditions. It indicated what the results are likely to be under similar conditions. Together with the few hints derived from the pilot studies, it suggested the most likely thematic structure of the pattern of press treatment of technological subjects in education. The combination of circumstances involved in each case would

determine the relative importance and complexion of themes involved in the overall patterns of press coverage.

We found no key, formula, or list of "helpful hints" pertinent to the overall formulation of educational or press policies in the many different contexts in which such policies have to be made. The reader primarily concerned with policy decisions may find a variety of implications in this paper. These implications derive their usefulness, if any, from the specific contexts in which they appear. It did not seem appropriate to divorce them from those contexts, and to present them in a neat but probably trite package of generalizations. Furthermore, we did not want to imply that such policy implications represent the significant conclusions of this study.

It is also beyond the scope or intention of this study to discuss what educational or press policy might be or should be,[14] beyond commenting on what a range of such policies has been. The significance of this study rests in its attempt to collect, interpret, and judge evidence relevant to one major instance of press treatment of communication technology topics in education. The major aim has been to contribute to an understanding of processes and patterns influencing such treatment and affecting educational policy.

What to do about such structural weaknesses as may be apparent in these processes and patterns is a question involving on one hand the minutia of practical decisions in a great variety of situations, and, on the other, the general role of the citizen presumably sharing control of social institutions. We have viewed some of these processes and patterns with evident concern. However, the facts laid out in the body of the report and in the Appendix should permit the reader to form his own judgments and to come to his own conclusions.

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[14]Our discussion of that subject appears in "Technology, Communication, and Education: A Social Perspective" (in press).

APPENDIX

The findings of the press content analysis appear in tabular form on the following pages. Also included are some preliminary tables which help to place the study of press treatment of communication technology topics in the context of some basic facts and figures about the press itself, and of the total press coverage of the 1961 NEA convention.

The study of press content was based on the analysis of all available material (collected by a commercial press clipping service) appearing in all U. S. English-language daily papers and involving mention of the NEA convention. The time period extended from a month before the convention opened until a month after it closed, i.e., from May 25, 1961 through July 30, 1961.

The unit of analysis was the story (news or editorial) as a whole. Frequencies appear both as the number of stories appearing in certain categories and as the estimated circulations of these stories.

Table 1 contains the number and circulation of all U. S. English-language daily newspapers classified into four circulation classes. These figures were used to arrive at circulation estimates for all stories analyzed in the study (see Note under Table 1).

Table 2 gives the findings of the total NEA convention press coverage both before and after June 25, 1961, in the four circulation classes.

Table 3 compares the circulation of all papers in the four circulation classes with the circulation of NEA convention stories, showing that the latter included a higher percentage of high-circulation than of low-circulation papers.

Table 4 gives information about the length of all stories in the four circulation classes.

Tables 5 - 10 pertain specifically to the treatment of communication technology topics, and are limited to actual and post-convention coverage beginning with June 25, 1961.

Table 5 compares front page stories devoted to communication technology topics with such stories devoted to other NEA convention topics.

Table 6 presents the number and circulation of all convention stories which (1) highlighted communication technology topics in the headline and lead, and (2) noted such topics anywhere in the story (including headline and lead).

Table 7 presents a similar breakdown of stories featuring opposition to or attacks upon communication technologies, and the percentage of such stories in the total relevant coverage.

Table 8 compares editorial attention devoted to communication technology topics with such comment dealing with all other topics in connection with the NEA convention.

Table 9 gives the number and circulation of stories citing comments by NEA convention speakers on communication technology topics.

Table 10 is the list of daily newspapers used in the pilot study of two-weeks education coverage.

The content analysis was done by the investigator himself. Special thanks for assistance go to his son John (age 10) who, at a critical stage in the study, was drafted to spend many hours measuring lengths of stories and recording circulation figures.

TABLE 1

NUMBER AND AVERAGE CIRCULATION OF ALL U.S. ENGLISH LANGUAGE DAILY NEWSPAPERS IN FOUR CIRCULATION CLASSES[1]

Circulation Class	I over 100,000	II 50,000 to 100,000	III 10,000 to 50,000	IV under 10,000
Number of daily papers in each class	123	111	545	809
Average net paid daily circulation per paper	267,717	71,597	21,506	5,323

[1]Based on Newspaper Circulation and Rate Trends. New York: Association of National Advertisers, Inc., 1959, p. 1.

NOTE: The average net paid daily circulation per paper in each circulation class, shown above, was used to arrive at the circulation estimate for each story in this study. Every story analyzed was classified into one of the above circulation classes, according to the actual declared average weekday circulation of the paper in which the story appeared. The findings of the analysis were multiplied by the average circulation of the class into which the story had been classified. For example, results for stories in circulation class I (over 100,000), were multiplied by 267,717; results for stories in circulation class II (50,000 to 100,000), were multiplied by 71,595; and so on.

TABLE 2

TOTAL NEA CONVENTION PRESS COVERAGE BY CIRCULATION CLASSES AND TIME PERIODS

Circulation Class	Before June 25		After June 25		Totals	
	Circ. in 1000's	Number of stories	Circ. in 1000's	Number of stories	Circ. in 1000's	Number of stories
I-over 100,000	6,425	24	86,472	323	92,852	347
II-50,000 to 100,000	2,506	35	16,753	234	19,259	269
III-10,000 to 50,000	2,602	121	22,452	1,044	25,054	1,165
IV-under 10,000	245	46	2,199	413	2,444	459
TOTALS	11,778	226	127,876	2,014	139,654	2,240
Percent of Circulation	8		92		100	
Percent of Stories		10		90		100

TABLE 3

COMPARISON OF TOTAL U.S. CIRCULATION AND TOTAL NEA CONVENTION COVERAGE CIRCULATION BY FOUR CIRCULATION CLASSES

Circulation Class	Percentage share of each circulation class in total U.S. daily press circulation	Percentage share of each circulation class in total NEA convention coverage circulation
I-over 100,000	58	66
II-50,000 to 100,000	14	14
III-10,000 to 50,000	20	18
IV-under 10,000	8	2
TOTAL	100%	100%

TABLE 4

LENGTH OF ALL NEA CONVENTION STORIES BY CIRCULATION CLASSES

Circulation Class	I over 100,000	II 50,000 to 100,000	III 10,000 to 50,000	IV under 10,000
Number of stories[1]	(347)	(269)	(1,165)	(459)
Length in column inches[2]				
under 5 inches	14	28	30	30
5 to 10 inches	31	42	37	42
10 to 15 inches	31	20	24	22
15 to 20 inches	14	5	6	4
over 20 inches	10	5	3	2
TOTAL	100%	100%	100%	100%

[1]Numbers in parentheses represent total number of stories appearing in each circulation class.

[2]These numbers represent percent of total number of stories in circulation class in each length category.

TABLE 5

FRONT PAGE STORIES IN U.S. DAILY NEWSPAPERS HEADLINING COMMUNICATION TECHNOLOGY AND OTHER 1961 NEA CONVENTION TOPICS

TOPICS	ALL FRONT PAGE STORIES			CITING ATTACKS ON TOPICS			
	Circ. in 1000's	No. of front page stories	Ave. circ. per story in 1000's	Circ. in 1000's	No. of front page stories	Ave. circ. per story in 1000's	% of circ. citing attack
Communication technology topics:	1,176	11	107	1,176	11	107	100%
All other convention topics:							
NEA on federal aid	2,384	54	44	268	1	268	11%
NEA on integration	4,335	152	29	-	-	-	
Other national issues	389	10	39	-	-	-	
Elections, appointments, awards	49	6	8	-	-	-	
Local names and other miscellaneous	239	11	22	-	-	-	
TOTALS	8,572	244	35[1]	1,444	12	120[2]	17%

[1]Average circulation per story of all front page stories.

[2]Average circulation per story of all front page stories citing attack on all topics.

TABLE 6

STORIES IN U.S. DAILY NEWSPAPERS DEALING WITH COMMUNICATION TECHNOLOGY TOPICS AT THE 1961 NEA CONVENTION

TOPICS	TOPIC IN HEADLINE AND LEAD			ALL STORIES NOTING TOPIC		
	Circ. in 1000's	No. of stories	Ave. circ. per story in 1000's	Circ. in 1000's	No. of stories	Ave. circ. per story in 1000's
"Teaching machines" in general	2,348	52	45	12,695	166	76
Audio-visual and technology in general	8,680	99	88	11,276	121	93
Educational television in general	531	8	66	10,557	143	74
"Speed reading" demonstration	2,802	21	133	3,380	36	130
So. Carolina closed-circuit demonstration	549	10	55	549	10	55
Other demonstrations and exhibits	33	3	11	149	6	25
TOTALS[1]	14,943	193	77			

[1]Totals can be tabulated only on stories having topic in headline and lead; other stories may deal with more than one of the topics.

TABLE 7

STORIES IN U.S. DAILY NEWSPAPERS FEATURING OPPOSITION TO COMMUNICATION TECHNOLOGIES IN EDUCATION AT THE 1961 NEA CONVENTION

TOPICS	OPPOSITION IN HEADLINE AND LEAD				ALL STORIES NOTING OPPOSITION			
	Circ. in 1000's	No. of stories	Ave. circ. per story in 1000's	% of all stories headlining topic	Circ. in 1000's	No. of stories	Ave. circ. per story in 1000's	% of all stories noting topic
"Teaching machines" in general	1,941	46	43	83%	12,287	159	77	97%
Audio-visual and technology in general	8,145	97	84	94%	10,014	112	89	89%
Educational television in general	459	6	77	87%	9,945	139	72	94%
"Speed reading" demonstration	777	7	111	28%	777	7	111	28%
S. Carolina closed-circuit demonstration	-	-	-	-	-	-	-	-
Other demonstrations and exhibits	-	-	-	-	-	-	-	-
TOTALS[1]	11,322	156	73	76%				

[1]Totals can be tabulated only on stories noting opposition in headline and lead; other stories may deal with more than one of the topics.

TABLE 8

U.S. DAILY NEWSPAPER EDITORIALS DEALING WITH COMMUNICATION TECHNOLOGY AND OTHER TOPICS AT THE 1961 NEA CONVENTION

TOPICS	ALL EDITORIALS			EDITORIAL OPPOSITION, CRITICISM			
	Circ. in 1000's	No. of editorials	Ave. circ. per edit. in 1000's	Circ. in 1000's	No. of editorials	Ave. circ. per edit. in 1000's	% of edit. circ. opposed
Communication technology topics:							
"Teaching machines"	1,102	38	29	1,010	36	28	99.8%
A-V, ETV	245	4	61	71	1	71	29.0%
"Speed reading" demonstration	521	8	71	510	6	85	97.9%
TOTALS	1,868	50	37	1,591	43	37	85.2%
Other convention topics:							
Federal aid	137	4	34	137	4	34	100.0%
Integration	467	5	93	128	3	42	27.4%
All other topics	655	28	23	159	4	40	24.3%
TOTALS	1,259	37	34	424	11	39	33.7%
GRAND TOTAL ALL EDITORIALS	3,127	87	36	2,015	54	37	64,5%

TABLE 9

CIRCULATION AND NUMBER OF STORIES CITING COMMENTS BY SPEAKERS ON COMMUNICATION TECHNOLOGY TOPICS AT THE 1961 NEA CONVENTION

SPEAKERS	Circ. in 1000's	No. of stories	Ave. circ. per story in 1000's
Frederick M. Raubinger N.J. Commissioner of Education	9,749	134	73
William Van Til	9,607	118	81
Edgar Dale	7,298	86	82
P. Kenneth Komoski	3,894	44	88
James D. Finn	317	2	158

TABLE 10

DAILY NEWSPAPERS USED IN THE PILOT STUDY OF TWO-WEEKS EDUCATION COVERAGE APRIL 21 THROUGH MAY 4, 1962

Chicago American

Chicago Daily News

Chicago Tribune

Chicago Sun-Times

Dallas Morning News

Danville (Illinois) Commercial News

Denver Post

Joliet (Illinois) Herald News

Kankakee (Illinois) Journal

Kansas City (Missouri) Star

Long Island (N.Y.) Newsday

Los Angeles Times

Louisville (Kentucky) Courier Journal

Milwaukee Journal

New Orleans Times Picayune

New York Daily News

New York Herald Tribune

New York Times

Peoria (Illinois) Journal Star

Philadelphia Bulletin

St. Louis Globe Democrat

St. Louis Post Dispatch

St. Petersburg (Fla.) Times

Wall Street Journal

Washington (D.C.) Post